The C.A. Lawton Co.
2018 - 2019 Green Tier Annual Report
(April, 2018 – March, 2019)
Revision 1

Submitted by:
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INTRODUCTION:

About the Company

The C.A. Lawton Co. (Calco) is a fifth-generation, family-owned gray and ductile iron foundry located in De Pere, Wisconsin. The Company manufactures large iron components across all types of industries through an integrated pattern shop, foundry and machine shop. Calco differentiates itself from its competition by offering customers combined, value-added services that target simplifying the purchase of complex, large, machined castings. Calco is ISO 9001:2015 certified. See our website at: http://www.calawton.com.

Per Calco's Environmental Policy Statement, "We believe that the virtues of sustainability and sensitivity to the environment and its protection are critical to our success as a business, employer, and community member, while balancing fiscal responsibility and corporate continuity." The company takes its regulatory responsibilities "Beyond Compliance" by applying best management practices designed to protect the environment and this philosophy encompasses why The C.A. Lawton Co. chose to become a Green Tier business in 2013.

This Green Tier Annual Report is for April, 2018 through March, 2019, which corresponds to the company's fiscal year.

ENVIRONMENTAL MANAGEMENT SYSTEM (EMS)

During 2014, Calco implemented an EMS. Internal audits of the EMS were completed in January, 2015 and February, 2016 to ensure the system was functionally equivalent with the essential elements of International Organization for Standardization standard 14001. In August, 2016, we had an audit of our EMS by a WI Department of Natural Resources outside approved environmental auditor, Total Quality Systems, LLC. Total Quality Systems, ". . . found that The C.A. Lawton's environmental management system conforms to each of the 15 requirements in Wis. Stats. 299.83(1)(dg) as a functionally equivalent environmental management system that also meets ISO 14001:2004 requirements." (TQS LLC cover letter RE: Wisconsin Green Tier Audit, August 17, 2016).

The Calco Quality Department performed an internal audit in June, 2017; and MCL Industries performed a management system audit in July, 2018. Both internal audits found the environmental management system continues to be compliant. The company is due for a third year outside audit in 2019. Calco requested delay of our third party audit due to our intent to transition to a 14001:2015 compliant management system and apply for Green Tier 2 status. Our request was granted by Laurel Sukup, WI Department of Natural Resources, Section Chief, Sustainability & Business Support. In the interim, MCL Industries will be performing an integrated management systems audit of our functionally equivalent environmental management system for compliance to ISO 14001:2004 requirements at the end of July, 2019.

Annually the Executive Team and the Compliance Team meet to review the results of audits and to discuss future goal-setting. During the annual management review, the group reviews the list of environmental aspects and makes any necessary additions, deletions, or revisions to reflect current operations. Finally, the team uses the EMS to identify significant environmental impacts in operations to guide corporate objectives, following the continuous improvement process of plan-do-check-act.

Environmental Aspects and Impacts were reviewed on June 6 and 7, 2017, and are scheduled for review during the transition to ISO 14001:2015 before the end of the calendar year.

ENVIRONMENTAL COMPLIANCE

The C.A. Lawton Co. operated in regulatory compliance during April, 2018 through March, 2019, and was able to put closure to the Letter of Non-Compliance raised during the Full Air Compliance Evaluation (FCE) performed on August 9, 2017. These items have been resolved. Briefly, the three items are:

1. **Use of a rust inhibitor formulation that exceeded permit Volatile Organic Compounds (VOC) limits.** Calco applied for a construction and operating permit revision to raise the formulation VOC content limit to bring the company in compliance with this customer-mandated item. Calco did not exceed any VOC facility emissions limits or violate an air quality standards in FY18 & FY19.

2. **Exceeded PM10 emission limit of 0.90 lbs/ton for "tap on" ductile treatment twice.** Calco incorporated an additional method of creating ductile iron during FY18. The "tap on" method is more efficient, reducing the quantity of alloys used and the volume of particulate (PM) emissions. The tap on method is also much safer for employees. To integrate the process into the air permit, a PM per ton emission factor was incorporated into the permit. Due to unforeseen inefficiencies, we exceeded the calculated PM emissions twice. An internal corrective action was raised to address these exceedances and the tap on procedure.

   We have improved the efficiency of the process and have been able to maintain a PM10 emission factor below the 0.90 lbs/ton throughout FY19. The new operating permit retains the 0.90 lbs/ton emission limit.

3. **Calco purchased a ladle for ductile treatment that exceeds capacity stated in permit application.** In conjunction with #2 above, and in an attempt to improve the efficiency of the tap on method of ductile treatment, Calco purchased a ladle to be used

exclusively for creating ductile iron, versus using one ladle for both gray and ductile iron. The Department determined a capacity evaluation and corresponding air modelling was necessary to verify compliance with air standards. Calco provided the capacity study to the Department, and air modelling successfully demonstrated compliance with air standards. As of June 5th, the company has a new operating permit 405005700-F23.

PROGRESS MADE ON GREEN TIER OBJECTIVES AND TARGETS:

In June, 2017, the Compliance Team identified three (3) objectives for fiscal year 2018 and 2019, approved by the Executive Team. They are:

Provide an opportunity for employees to recycle personal universal waste, e-waste, and document destruction free-of-charge by the end of FY18 and incorporate the offering into an ongoing event.

OBJECTIVE RATIONALE: This Objective was set by the Compliance Team to reinforce the company's commitment to recycling and to assist employees and their families by providing an easy way to divert hazardous materials and electronics waste (e-waste) generated at home from the landfill. Calco is dedicated to minimizing hazardous waste generated in operations from going to the landfill. We regularly dispose of corporate hazardous waste and universal waste through third parties, and decided that extending the disposal service of universal and e-waste to employees and their families made sense. This is the fourth year for offering this service, and the going forward this will be a permanent annual benefit for employee families.

To encourage broad employee participation, the Company pairs this event with a morning of safety and environmental training followed by a company-wide picnic. Huge Gaylord boxes, shredding bins, and collection receptacles are prominently placed at the perimeter of the picnic site. At the close of the June 2018 event, The C.A. Lawton Co. collected 2,490 pounds of e-waste, along with fluorescent tubes, batteries, and confidential documents for shredding. This averages out to almost 21 lbs. of waste per employee.

The next e-waste recycling event is scheduled for Friday, August 2, 2019.

Compile baseline and statistical data of electric usage for foundry furnaces (per pound of iron poured) to identify anomalies requiring further investigation on a monthly basis by end of FY19.

OBJECTIVE RATIONALE: This Objective was set by the Compliance Team to provide a starting point of data collection for energy costs related to foundry production. The information obtained will potentially provide data for a variety of uses, such as determining if there is a statistical correlation between the amount of electricity used in the electric induction furnaces to melt iron and the amount of iron poured. These data could be analyzed for relevance to production planning, cost savings opportunities, energy conservation, and business operating practices.

Monthly electricity consumption in kilowatt hours and production volumes were compiled for the last ten-years in an Excel spreadsheet. The data is ready for further analysis and manipulation.

A cross-functional team from Calco met with the utility company servicing our facilities to discuss potential opportunities for energy savings and reduced consumption. In addition, Wisconsin Public Service conducted a Level 1 Energy Assessment in April, 2018. The assessment identified eleven (11) potential energy conservation measures for the team to evaluate. The next step the team intends to take is to prioritize these recommendations and begin incorporating them into operations and into the FY20 Objectives.

Explore potential, viable customer-approved alternatives to oil-based rust inhibitor used on customer castings to reduce volatile organic compound (VOC) emissions from operations by end of FY18.

OBJECTIVE RATIONALE: This Objective was set by the Compliance Team to explore alternatives to using rust inhibitors containing Volatile Organic Compounds (VOCs). Besides reducing or eliminating VOC emissions, additional benefits of finding an alternative way of protecting castings from rusting include reducing special handling waste costs, eliminating buildup of excess product on the shipping preparation area floor, and decreasing the cost of personal protective equipment needed for the rust inhibitor application process. A critical requirement of an alternative product is customer acceptance and written approval.

In 2018, a team began evaluating options by consulting the rust inhibitor specification of the key customer whose castings require a majority of the VOC-containing rust inhibitor. One of the options was Vapor Corrosion Inhibitor (VCI) film and bags. Both film and bags were effective in concept, however, using the film presented safety issues when wrapping parts and bags were punctured and torn when loading parts onto the truck with a forklift. Ultimately, VCI film and bags did not work to this particular customer's satisfaction, but the team did not give up on the concept.

In December, 2018 The C.A. Lawton Co. was awarded significant new business with a new customer that also required rust inhibitor applied to their parts before shipment. Our customer service engineer approached the customer with the concept of VCI. They were receptive to the idea and have used VCI technology for local suppliers. After several trial shipments, the technology proved effective for shipping our castings over long distances. We estimate that we will avoid 128 pounds of VOC pollutant emissions per month by switching to VCI packaging. Furthermore, the customer will be able to recycle the used VCI bag with the bag manufacturer, who will then reprocess the bag into new VCI bags.

Given this success, the team will continue to propose conversion to VCI technology for customers requiring VOC-containing rust inhibitor application on their parts prior to shipment.

GREEN TIER OBJECTIVES AND TARGETS FOR FISCAL 2020:

The Compliance Team has identified the following goals for fiscal year 2020, approved by the Executive Team. They are:

Transition from our current operating air pollution permit to the new ROP G02 permit.

OBJECTIVE RATIONALE: The Executive Team believes that the Registration Permit Option now available to Green Tier businesses will provide flexibility to foundry operations, which would eliminate the need for construction permit applications for minor changes within the facility. The new Registration Permit will allow The C.A. Lawton Co. to self-regulate compliance through Green Tier II, plus respond quickly to operational changes that would not impact overall facility emission limits.

Transition from Green Tier I to Green Tier II status.

OBJECTIVE RATIONALE: This goal is closely linked to transitioning to the Registration Permit for Green Tier II entities, referenced above. Incorporating additional Green Tier II requirements into the integrated management system aids the organization with the continuous improvement process and helps Calco be the best environmental citizen possible.

Transition from ISO 14001:2004 to ISO 14001:2015.

OBJECTIVE RATIONALE: This transition is necessary to qualify for the Green Tier II program. Upgrading to the 2015 standard is consistent with our ISO 9001:2015 certified quality system.

OTHER:

The C.A. Lawton Co. is committed to supporting stakeholders and our communities. We participate in educational committees for local high schools and technical colleges, industry associations, and advisory boards.

In 2014, we joined the Adopt-A-Highway program. Highway clean-up for 2018 took place on June 29, October 4 and October 25. Employees spend company time cleaning the roadside of a state highway close to our facility and then, as a thank you for their efforts, go to a local restaurant for a company-provided lunch.

With each passing year, we reinforce our desire to operate The C.A. Lawton Co. in an environmentally friendly, sustainable, responsible manner. The Company continues to explore opportunities to improve sustainability and protect the environment as new objectives are set for the upcoming fiscal year.